

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1 (Currently Amended): A method of manufacturing a ceramic device comprising:

transporting ceramic tape in a green state into the proximity of a first forming element;

fixing a first end of said tape with respect to said first forming element;

moving said tape and first forming element relatively to each other in a motion including simultaneously rotational and translational movements, thus winding said tape around said first forming element;

removing said fixing of a first end and separating ~~thereby allowing separation of~~ said tape and first forming element to generate a helically wound pre-formed tape;

fixing at least one end of said pre-formed tape with respect to a second forming element; and

moving said pre-formed tape and second forming element relatively to each other in a motion including at least a rotational movement, thus winding said pre-formed tape around said second forming element.

Claim 2 (Original): The method of claim 1, further comprising, during the step of moving said tape and first forming element relatively to each other, continuously pressing said tape onto said first forming element at a zone where said tape first contacts said first forming element.

Claim 3 (Original): The method of claim 2, further comprising, during the step of moving said tape and first forming element relatively to each other, exerting a force on the edge of the tape at a zone where said tape first contacts the first forming element to prevent slippage of said tape relative to said first forming element.

Claim 4 (Previously Presented): The method of claim 1, further comprising, between the step of moving said tape and first forming element relatively to each other and the step of removing said fixing of a first end, closing a second clamping element around the first end of the tape.

Claim 5 (Previously Presented): The method of claim 1, wherein the step of separating said tape and first forming element comprises moving the first forming element relatively to an edge holding back the pre-formed tape.

Claim 6 (Previously Presented): The method of claim 1, wherein, during the step of moving said pre-formed tape and second forming element relatively to each

other, the pre-formed tape is held at both ends using clamping elements, one of said clamping elements fixing one end of said pre-formed tape with respect to the second forming element, the other clamping element performing a relative rotational movement around said second forming element.

Claim 7 (Currently Amended): The method of claim 1, further comprising the steps of removing the fixing with respect to the second forming element and transferring the wound pre-formed tape onto a support structure; and placing said support structure into an environment for drying.

Claim 8 (Previously Presented): The method of claim 1, wherein the tape is handled by pneumatically operated devices.

Claim 9 (Previously Presented): The method of claim 1, wherein the step of moving said tape and first forming element relatively to each other comprises rotating the first forming element and translating the unwound portion of the tape towards the first forming element.

Claim 10 (Original): The method of claim 9, wherein the step of moving said tape and first forming element relatively to each other further comprises translating the first forming element along an axis about which the tape is wound.

Claim 11 (Canceled).

Claim 12 (Previously Presented) The method of claim 1, wherein the first forming element is cylindrical.

Claim 13 (Previously Presented): The method of claim 1, wherein the tape comprises layers of electro-active material.

Claim 14 (Currently Amended): An apparatus for manufacturing a ceramic device from tape in a green state, the apparatus comprising

a first forming element;

a first clamping system for fixing a first end of said tape with respect to said first forming element;

a first mechanism for moving said tape and first forming element relatively to each other in a motion including simultaneously rotational and translational movements, thus winding said tape around said first forming element to form a pre-formed ~~preformed~~ tape, the first mechanism being further arranged to separate said pre-formed tape from said first forming element after release of the first clamping system;

a second forming element;

a second clamping system for fixing at least one end of said pre-formed tape with respect to said second forming element; and

a second mechanism for moving said pre-formed tape and second forming element relatively to each other in a motion including at least a rotational movement, thus winding said pre-formed tape around said second forming element.

Claim 15 (Original): The apparatus of claim 14, wherein the first clamping system includes a spring-loaded surface that in operation continuously presses the tape onto said first forming element at a zone where said tape first contacts said first forming element.

Claim 16 (Original): The apparatus of claim 15, wherein the spring-loaded surface is combined with a force-transmitting member adapted to contact the edge of the tape at a zone where said tape first contacts the first forming element to prevent slippage of said tape relative to said first forming element.

Claim 17 (Previously Presented): The apparatus of claim 14, further comprising a stripping edge making contact to the first forming element to separate said first forming element and the pre-formed tape.

Claim 18 (Previously Presented): The apparatus of claim 14, wherein the second clamping system includes a first clamping element for fixing a first end of the tape to the second forming element and a second clamping element for fixing the other

end of the tape, the second mechanism being arranged to relatively rotate the second clamping element around said second forming element.

Claim 19 (Original): The apparatus of claim 18, further comprising one or more saggars having recesses adapted to support the formed tape during drying.

Claim 20 (Currently Amended): The apparatus of claim 14, wherein the clamping systems ~~devices~~ are pneumatically operated.

Claim 21 (Previously Presented): The apparatus of claim 14, wherein the first forming element is a cylindrical rod.

Claim 22 (Previously Presented): The apparatus of claim 14, wherein the first mechanism comprises a rotary drive arranged to rotate the first forming member and a conveyor system arranged to translate the tape towards the first forming member.

Claim 23 (Original): The apparatus of claim 22, wherein the first mechanism further comprises a linear drive arranged to translate the first forming member along an axis about which the tape is wound.

Claims 24 and 25 (Canceled).